



High-Speed Bag Loading

DOMINIC DUDA

RAYA 2024 Finalist Event



Challenge

Removal of repetitive loading activity



- Stacked material

- 55 pics/minute

- Transparent & Bubbles

- Small footprint

Solution

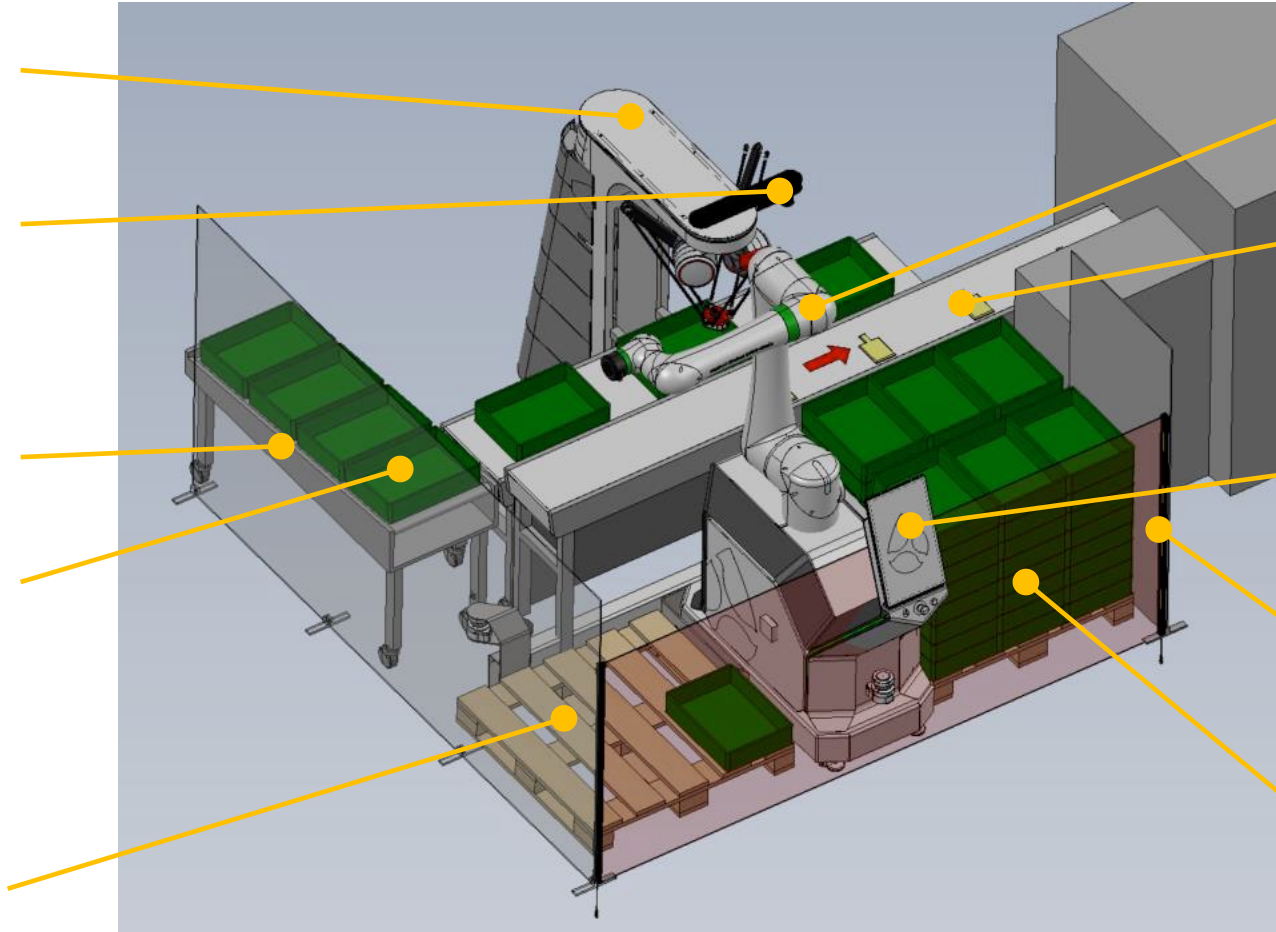
Sidebot for high-speed bin picking

AI-Vision system

Reject station

Green tote

Empty pallet station



Cobot for tote transfer

Plasma bag

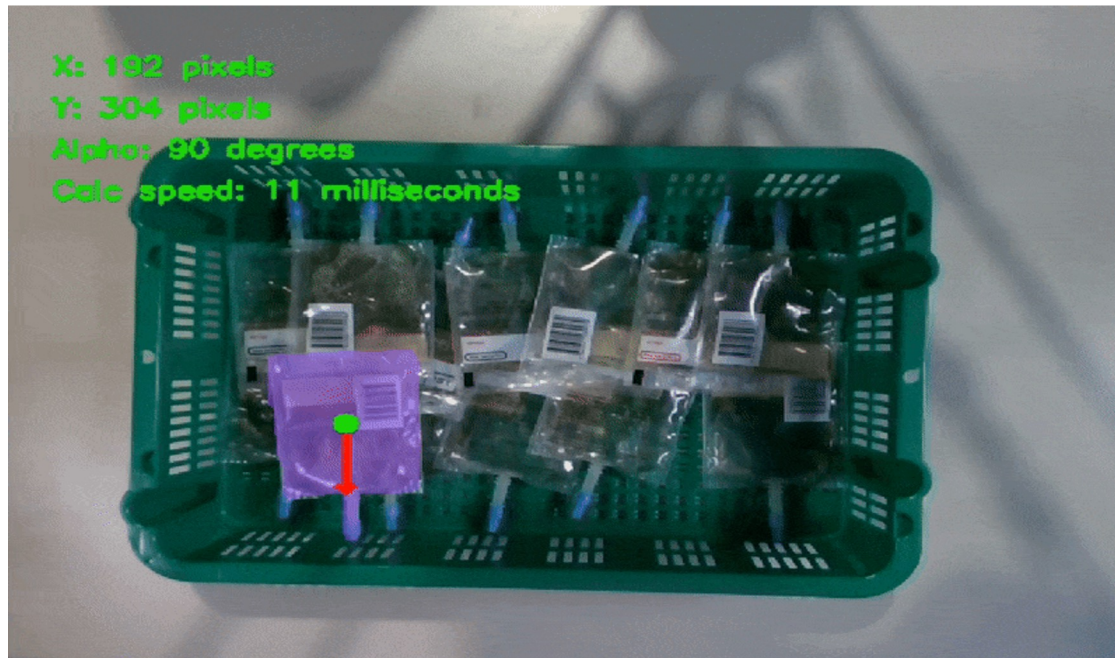
HMI

Safety system

Full pallet station

High-speed bin-picking - Demo

Fast image processing (*approx. 12ms*) and remarkable robotic agility, we are able to pick up to 70 pouches per minute!



Features & Attractiveness – Drivers & Cost

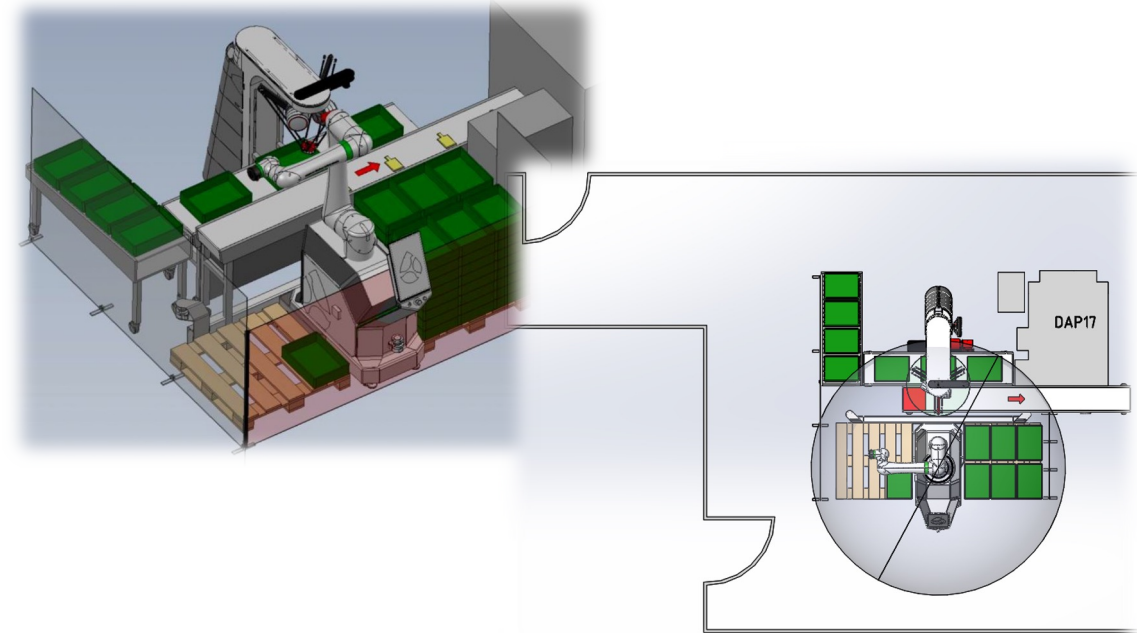
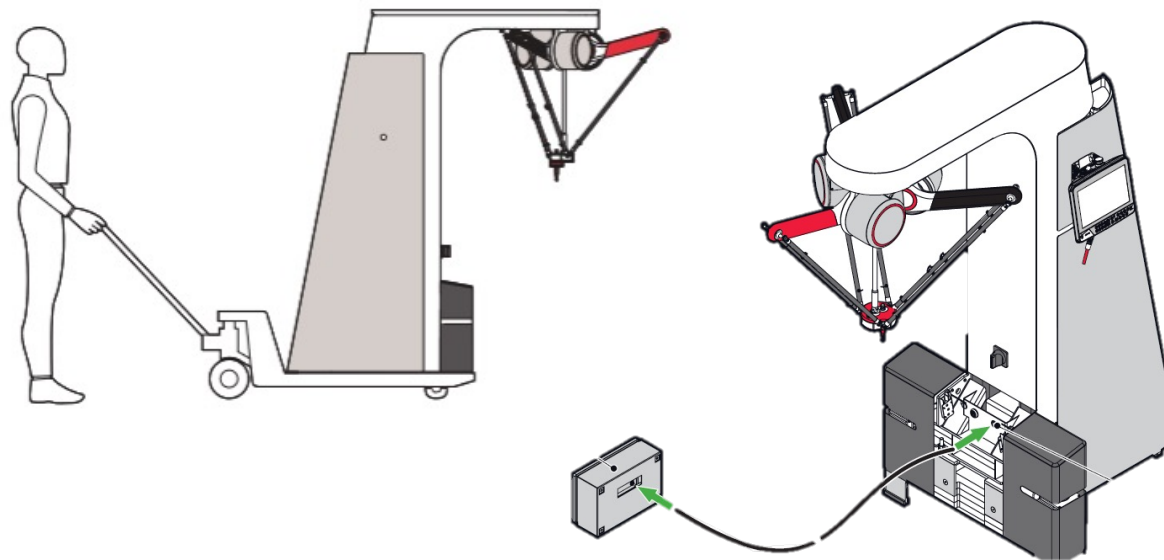
- Removal of manual repetitive task that can be automized to free up resources for more value adding task
- Create an interface between technologies that are already in common use



- ROI below 3 years
- 20% speed increase
- 4 FTE removed from process
- Below 1 year project closure time

Features & Attractiveness – Flexibility & Integration

- Connectivity features allowing easy re-qualification
- Small footprint ensure high compatibility



- Various configuration are possible and easy to reprogram
- Inbuilt safety system reduce commissioning effort

Features & Attractiveness – Area of Application

- Magnetic gripper ensure toolless changeover
- Standardized connector ensure high combability with dozen of end effector suppliers



- AI-Based vision system can be used for various applications

Final Message

Closing the gap between already automated technologies is a crucial step toward achieving true, high-level automation across existing systems.

The brilliance of this approach lies not in reinventing the wheel, but in recognizing the potential of what we already have and combining these elements into a seamless, integrated solution.

By leveraging the strengths of current technologies, we can create more efficient, intelligent, and scalable systems that drive innovation and success.

Let's continue to build on this foundation, unlocking new opportunities for growth and transformation.